ABSTRACT OF THE DISCLOSURE

A method and apparatus for mitigating the effects of polarization on wavelength determinations is disclosed. An optical source produces light across an optical spectrum, while a polarization element changes the polarization of the light at a first rate. The resulting light is applied to an optical element that produces a spectral response with a feature of interest from the polarization changed light. The optical element and the polarization element are such that the bandwidth of the feature of interest of the optical element is significantly greater than the first rate. A receiver network produces received signals from the received spectrum; and a data processing unit calculates a wavelength that is insensitive to ripple in the received signal and/or the received signals are low-pass filtered to reduce the ripple resulting from the polarization change.